

Commercial Analysis of ATM Devices

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Z-ATM
1984 c.1

AUTHOR

Commercial Analysis of ATM Devices

TITLE

DATE
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COMMERCIAL ANALYSIS OF ATM DEVICES

I INTRODUCTION

- All four of the major non-IBM vendors of ATM devices were interviewed by telephone, based on the questionnaire in Appendix A which follows the objectives for the survey provided by IBM.
- IBM's final contract, dated March 21, 1984, unfortunately prohibited the use of the pricing data collected, reducing the value of the interviews. Accordingly, the data contained in questions 2 and 3 have been blocked out of the questionnaires. IBM was not interviewed for obvious reasons.
- Vendors were not able to distinguish service provided by model of ATM sold, other than service pricing (which was deleted from the survey). Consequently, the analysis is by vendor only. In the case of Docutel, the interview was with TRW, the designated service supplier.

II CONTRACTUAL SERVICES OPTIONS OFFERED

- The predominant method of service is the on-site monthly contract supplemented by on-site per call. For Inter Innovation, these services are supplemented by third-party service vendors.
- Remote support services (RSS) is gradually making headway. NCR will offer RSS in the near future but does not currently do so. Cautious, conservative Diebold is the only one interviewed that has no stated plans to do so. INPUT believes that all vendors will be faced with the decision to offer this option since the dispersion of ATM devices into the retail distribution environment would otherwise make service either prohibitively expensive to the user or unprofitable for the vendor.
- Depot repair is firmly established but in the case of NCR, it is only for the 5070 which is a brand new product.
- User self-maintenance has not been successful, usually due to user reluctance to be involved in the service process.
- Exhibit II-1 provides a summary of the findings.



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EXHIBIT II-1

CONTRACTUAL ATM SERVICE OPTIONS

SERVICE	VENDOR			
	<i>BankTel (TRW)</i>	<i>Inter Innovation</i>	<i>NEX</i>	<i>DEPOS</i>
On-site Service Monthly Contract	X	X+	X	X
On-site per Call	X	X	X	X
Remote Support	X	X	o	-
Depot Repair	X	X	*	X
User Self-maintenance	*	X	u	-
Other	-	-	-	-

* = In isolated cases only.

+ = Direct and third party.

o = In the future will be offered.

u = Offered but not used.

III INSTALLATION SUPPORT

- Installation is usually not charged for separately (i.e., included in the sales price). The one exception is service supplied by third-party maintenance vendors (e.g., TRW for Docutel) where a flat rate fee is levied (e.g., \$795 for the Docutel 2380).

IV WARRANTY COVERAGE

- Warranty duration is usually 90 days. The exception in Diebold, wherein:
 - It is 60 days on the Diebold 9000 series;
 - It is zero days on other products (all customers receive a maintenance contract from the day of installation).
- Warranty coverage is varied:
 - TRW's warranty is for parts only which is provided to them on an exchange basis by Docutel; the labor is charged separately at standard rates;
 - Diebold's warranty, where applicable, covers a predefined amount of labor and parts that will be exchanged; all else is billable;
 - Inter Innovation's and NCR's warranties cover parts and labor without limitation.

V PARTS DEPOT

- Most vendors have a single, computerized, centralized parts depot. The exception is NCR which has chosen to allocate parts to the 120 service districts it manages.

VI USER SELF-MAINTENANCE

- As already stated, this option is not popular with users. Usually ATM vendors allow the users, if they are large, in-house trained customers, to swap modules. The modules are not consistently electronic or electromechanical. The decision to "allow" users to do this is made on an individual basis.

RAW DATA QUESTIONNAIRES

COMMERCIAL ANALYSIS OF ATM DEVICES

1. What types of contractual service options are offered for your ATM products? (☒)
 - ☒ On-site Service (monthly contract)
 - ☐ Remote Support *will*
 - ☒ Depot Repair *on 5070 (very new)*
 - ☒ User Self-maintenance *offer but not utilized*
 - ☒ On-site per Call
 - ☐ Other (specify) _____

2. For each of the options offered, how is pricing structured?

On-site Service (monthly contract): _____ % of Sales Value

On-site per Call (fees): _____

Remote Support (fees): _____

Depot Repair *very new* _____

User Self-maintenance: _____

Other (specify) _____

3. What are the charges for installation support? _____
(included in list price)

4. What does warranty cover? *covers everything for*
3 months (warranty included in list price)

5. How is service provided?

☐ By Product Type ☐ By Geographic Location ☒ Both

Field Engineers trained for specific products *Product Type 1st & then geographic location*

6. How many field engineers provide service to the ATM products? *about 6500*

7. How many parts depots are there in the U.S.? *about 120 districts*
all districts have parts (Over)

8. Do you allow clients to replace failed modules? ☐ Yes

☒ No

If so, what type of modules are involved?

☐ Mechanical Only

☐ Electro-mechanical

☒ Electronic

*with new 5070
they will allow it*

does not think they're either.

Unscrew panel & unplug module

Thank You!

We would also appreciate receiving your customer service price lists and service contracts. Please mail to:

INPUT
1943 Landings Drive
Mountain View, CA 94043

COMMERCIAL ANALYSIS OF ATM DEVICES

1. What types of contractual service options are offered for your ATM products? (☒)
- ☒ On-site Service (monthly contract) *direct & indirect (3rd party)*
- ☒ Remote Support
- ☒ Depot Repair
- ☒ User Self-maintenance
- ☒ On-site per Call
- ☐ Other (specify) _____
2. For each of the options offered, how is pricing structured?
- On-site Service (monthly contract): _____ % of Sales Value
- On-site per Call (fees): _____
- Remote Support (fees): _____
- Depot Repair _____
- User Self-maintenance: _____
- Other (specify) _____
3. What are the charges for installation support? _____
- _____
4. What does warranty cover? parts & labor for
90 days
5. How is service provided?
- ☐ By Product Type ☐ By Geographic Location ☒ Both
6. How many field engineers provide service to the ATM products?
4 (all products are in Manhattan)
7. How many parts depots are there in the U.S.? 1 (New York)

8. Do you allow clients to replace failed modules? ☒ Yes

☐ No

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If so, what type of modules are involved? *If have trained in-house service otherwise no*

☒ Mechanical Only

☒ Electro-mechanical

☒ Electronic

Thank You!

We would also appreciate receiving your customer service price lists and service contracts. Please mail to:

INPUT
1943 Landings Drive
Mountain View, CA 94043

COMMERCIAL ANALYSIS OF ATM DEVICES

1. What types of contractual service options are offered for your ATM products? (☒)

☒ On-site Service (monthly contract)

No ☐ Remote Support

☒ Depot Repair

No ☐ User Self-maintenance

☒ On-site per Call

☐ Other (specify) _____

2. For each of the options offered, how is pricing structured?

On-site Service (monthly contract): _____ % of Sales Value

On-site per Call (fees): _____

Remote Support (fees): _____

Depot Repair _____

User Self-maintenance: _____

Other (specify) _____

3. What are the charges for installation support? _____

4. What does warranty cover? _____

60 days for Diebold 9000; all other products: no warranty - all customers receive maintenance contract effective date of installation and covers predefined amount of labor, defined list of parts and number of inspections per year.

5. How is service provided?

☐ By Product Type

☒ By Geographic Location

☐ Both

6. How many field engineers provide service to the ATM products?

about 1000 in 362 service locations

7. How many parts depots are there in the U.S.? _____

(Over)

8. Do you allow clients to replace failed modules?

☒

Yes

☐

No

If so, what type of modules are involved?

☐

Mechanical Only

☒

Electro-mechanical

☒

Electronic

→ are allowed to do it
if they have a large
base; handled individually

Thank You!

We would also appreciate receiving your customer service price lists and service contracts. Please mail to:

INPUT
1943 Landings Drive
Mountain View, CA 94043

COMMERCIAL ANALYSIS OF ATM DEVICES

1. What types of contractual service options are offered for your ATM products? (☒)

- ☒ On-site Service (monthly contract) *quarterly & annual billing, also*
☒ Remote Support *Maintenance Contracts (98% of customers)*
☒ Depot Repair
☒ User Self-maintenance *some cases*
☒ On-site per Call
☐ Other (specify) _____

2. For each of the options offered, how is pricing structured?

- On-site Service (monthly contract): _____ % of Sales Value
 On-site per Call (fees): _____
 Remote Support (fees): _____
 Depot Repair _____
 User Self-maintenance: _____
 Other (specify) _____

3. What are the charges for installation support? _____

4. What does warranty cover? Parts (Not Labor) for 90 Days
(according to Decotel's Gene Warner)

5. How is service provided?

- ☐ By Product Type ☐ By Geographic Location ☒ Both
Most technicians are cross-trained

6. How many field engineers provide service to the ATM products?

7 field engineers specifically for ATM. 20 additional F.E.'s
trained also (provide back-up)

7. How many parts depots are there in the U.S.? 2

8. Do you allow clients to replace failed modules? ☐ Yes ☒ No

If so, what type of modules are involved?

- ☐ Mechanical Only
☐ Electro-mechanical
☐ Electronic

Thank You!

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INPUT
1943 Landings Drive
Mountain View, CA 94043

TRW also services Tellermatic/Moser

Also beginning service for Fujitsu machines
which are ~~at~~ going to be installed at
all Safeways.

Information here is only in regard to Docutel

VENDOR MAINTENANCE CONTRACTS



Agreement # _____
Customer # _____
Customer PO # _____
Effective Date _____

Page _____ of _____
Type of Billing:
Monthly _____
Quarterly _____
Annually _____

Billing Name and Address:

Contact: _____

Telephone: _____

ADDITIONAL TERMS AND CONDITIONS APPLICABLE TO THIS MAINTENANCE AGREEMENT AND MADE A PART HEREOF FOLLOW:

ACCEPTED: Inter Innovation Inc.

By: _____
Authorized Signature Date

By: _____
Name _____

Title _____ Date _____

CONTINUATION OF TERMS AND CONDITIONS OF MAINTENANCE AGREEMENT

1. **EQUIPMENT AND TERM OF MAINTENANCE SERVICES:**
a) Inter Innovation shall provide, through its employees, agents or subcontractors, and CUSTOMER shall purchase from Inter Innovation its maintenance services on the Equipment listed in the Schedule(s) below, hereinafter referred to as "Unit(s) of Equipment" or "Equipment".
b) The term of maintenance service for each Unit of Equipment specified herein shall be twelve (12) months commencing ninety (90) days from the date on which such Unit of Equipment is installed in the designated premises of the CUSTOMER. Maintenance charges for each Unit of Equipment shall commence ninety (90) days following the date of installation.
c) The "SELECTED (hereinafter defined) Maintenance Charges" are not subject to increase by Inter Innovation until twelve (12) months from the effective date of this Agreement, which date shall be designated as "Anniversary Date". Effective on the Anniversary Date and any time thereafter, the charges herein specified as well as those for any add-on, upgrade or replacement Equipment ordered or installed on Equipment ordered under this agreement are subject to change by Inter Innovation upon thirty (30) days prior written notice to CUSTOMER. If CUSTOMER does not agree to such change, it may terminate this Agreement by written notice to Inter Innovation not less than ten (10) days prior to the effective date of the change.
d) This Agreement will automatically renew for periods of one (1) year unless terminated in writing by either party at least thirty (30) days prior to the end of the original term of this Agreement or any Extensions thereof.

2. **MAINTENANCE CHARGES AND TAXES:**
a) Upon commencement of the maintenance term, CUSTOMER shall make maintenance payment to Inter Innovation for each Unit of Equipment at the monthly, quarterly, or annual rate, hereinafter to be referred to as "Selected Maintenance Charges", specified herein. The selected maintenance payment for each Unit of Equipment shall commence on the 91st day after such Unit of Equipment has been installed and accepted by the CUSTOMER at the designated premises. Inter Innovation shall invoice the Selected Maintenance Charges in advance. Payment shall be made in full by the CUSTOMER upon receipt of invoice.
b) There shall be added to the Selected Maintenance Charges hereunder amounts equal to any taxes, however designated, now or hereafter, levied or based on such charges or on this agreement or the Equipment or its use or any service or parts supplied hereunder, including without limitation state and local sales, use, privilege or excise taxes based on gross revenue and any taxes or amounts in lieu thereof and interest thereon paid or payable by Inter Innovation in respect of the foregoing, exclusive, however, of taxes based on net income of Inter Innovation. In lieu of the above, CUSTOMER shall provide Inter Innovation with a tax exemption certificate acceptable to Inter Innovation and all its applicable taxing authorities.
c) If CUSTOMER requests a change in the attachments or in the function of the Equipment or an increase in its performance, Inter Innovation reserves the right to adjust the specified Selected Maintenance Charges notwithstanding Section 1c hereof. Inter Innovation will notify CUSTOMER in advance of any increase in maintenance charges necessitated by the change. A charge will be applied for field installation or removal of terminal options or peripherals.
d) If CUSTOMER requests removal of a Unit of Equipment from one location and installation at another location, CUSTOMER will be billed a one-time charge for removal and reinstallation which will be presented prior to effecting such removal. Transportation expenses incurred in relocating Equipment are the responsibility of the CUSTOMER.
e) The Selected Maintenance Charge entitles the CUSTOMER to Inter Innovation's remedial and preventive maintenance services during the Principal Period of Maintenance (defined in Section 3c). The Selected Maintenance Charge is designated for Equipment located within scheduled service zones. A Selected Maintenance Charge in accordance with the terms of this Agreement will be quoted by Inter Innovation for those locations beyond Inter Innovation's then current scheduled Service Zone Classification, as required.
f) Should CUSTOMER change the character, function or performance of the Equipment through the use of unauthorized attachments, options or features, Inter Innovation may increase maintenance costs accordingly or terminate at any time thereafter maintenance service for all units or configurations so affected.

3. **SCOPE OF INTER INNOVATION MAINTENANCE SERVICE:**
a) Subject to the terms and conditions herein set forth, Inter Innovation shall perform such remedial and preventive maintenance services as may be required to keep the Equipment in good working order, and Inter Innovation shall make all adjustments, parts replacement, repairs, and Equipment replacements necessary to fulfill this obligation. For this purpose, Inter Innovation shall have full and free access to the Equipment at all reasonable times. Equipment shall be deemed to be maintained in good working order so long as it operates in accordance with Inter Innovation's specifications. Maintenance services shall be furnished by such service facility as Inter Innovation shall designate.
b) Preventive maintenance shall be performed during the Principal Period of Maintenance as herein defined and at a time which is mutually acceptable to Inter Innovation and the CUSTOMER. Preventive maintenance

includes inspection, cleaning, lubrication, adjustments and replacement of unserviceable parts. Inter Innovation shall determine the frequency and the duration of preventive maintenance required in respect to all Equipment.
c) Standard remedial maintenance services shall be furnished between the hours of 9:00 a.m. and 5:00 p.m., Mondays through Fridays, excluding legal holidays observed by CUSTOMER, hereinafter called the "Principal Period of Maintenance".
d) During the Principal Period of Maintenance, Inter Innovation intends to respond to calls for on-call remedial maintenance service within six (6) consecutive business hours after receiving a request from CUSTOMER for such service, but no later than twenty-four (24) consecutive business hours after receipt of such a call. Downtime which occurs on weekends or holidays will not be considered in the calculation of response time for the purpose of this paragraph.
e) Parts will be furnished on an exchange basis and will be new parts or parts equivalent to new in performance when used in such Equipment. Replaced parts become the property of Inter Innovation.
f) All test equipment, accessories, spare parts and other devices required to maintain the Equipment shall remain the property of Inter Innovation, and may be removed by Inter Innovation at any time after termination of the Agreement.
4. **EXCLUSIONS FROM INTER INNOVATION MAINTENANCE SERVICES:** Inter Innovation maintenance service provided herein does not include:
a) Software and programming support.
b) Site preparation and electrical work external to the equipment.
c) Replacement or installation of supplies, i.e., ribbons, paper rolls, or magnetic media.
d) Replacement of parts or repair of damages resulting from causes other than ordinary use by the CUSTOMER such as, but not limited to, accident, CUSTOMER neglect or misuse. If persons other than an Inter Innovation representative shall repair, modify or perform any maintenance services on any Equipment covered by this Agreement, and as a result thereof further maintenance service by Inter Innovation is required to restore the Equipment to good operating condition, such maintenance service will be made, if possible, at Inter Innovation's applicable time and material rates and terms then in effect.
e) Painting or refinishing the Equipment or furnishing material therefor; making CUSTOMER-requested specification changes beyond those required to meet the standard specifications; performing services connected with relocation of machines; or adding or removing accessories, attachments or other devices.
g) Service calls resulting from non-Inter Innovation Equipment, or supplies not approved by Inter Innovation.
h) Stand-by as a result of a CUSTOMER request.
Services performed in connection with paragraphs (e) through (h) above will be billed at Inter Innovation's applicable time and material rates and terms then in effect.
i) Initial installation charges are not part of maintenance.

5. **MAINTENANCE SERVICE OUTSIDE THE PRINCIPAL PERIOD OF MAINTENANCE:**
a) If the CUSTOMER requests remedial maintenance to be performed at a time which is outside the Principal Period of Maintenance, the service will be furnished when available at Inter Innovation's standard hourly rates and terms then in effect. However, Inter Innovation does not guarantee the response time or availability of maintenance service outside of the contracted Principal Period of Maintenance on any particular occasion.
b) In the above connection, Inter Innovation will charge travel time to and from CUSTOMER'S location (travel time is defined as actual time spent portal to portal traveling to and from CUSTOMER'S location) calculated at Inter Innovation's then current hourly rate, and related travel expenses incurred by Inter Innovation maintenance personnel, including mileage, parking and tolls. Time and expense will commence from the designated service center, unless otherwise approved by CUSTOMER.
c) Service requiring overnight accommodations must be approved in advance by the CUSTOMER, and will include a per diem expense and daily meal allowance or pro rata portion thereof, at Inter Innovation's then current rate, as well as actual travel expenses, i.e., mileage, parking and tolls.

6. **INSTALLATION OF ENGINEERING CHANGES:** Inter Innovation will install at its option all engineering changes it deems necessary to improve reliability and maintenance of Equipment covered by this Agreement. There will be no charge for such engineering changes. If the CUSTOMER requests installation of engineering changes, Inter Innovation reserves the right to charge for such service at Inter Innovation's applicable time charges and terms then in effect if said changes are beyond those required to make the Equipment meet Inter Innovation's published specifications.

7. **LIMITATION OF LIABILITY:**
a) INTER INNOVATION'S SOLE AND EXCLUSIVE LIABILITY UNDER THIS AGREEMENT SHALL BE TO PERFORM THOSE MAINTENANCE SERVICES PROVIDED FOR HEREIN ON THE TERMS AND CONDITIONS HEREOF. INTER INNOVATION HEREBY DISCLAIMS ANY AND ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION,

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
b) INTER INNOVATION SHALL NOT BE LIABLE TO CUSTOMER OR ANY THIRD PARTY FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF ANTICIPATED PROFITS OR OTHER ECONOMIC LOSS) ARISING OUT OF PERFORMANCE OR LACK OF PERFORMANCE, OR BREACH OF ANY REPRESENTATIONS MADE, PURSUANT TO THIS AGREEMENT, OR ARISING OUT OF ANY SERVICES, OR REPRESENTATIONS MADE TO CUSTOMER. INTER INNOVATION SHALL NOT BE LIABLE FOR ANY DELAY IN OR FAILURE OR DEFECT OF PERFORMANCE UNDER THIS AGREEMENT, OR BE LIABLE FOR ANY OTHER CONSEQUENCE, DAMAGE, INJURY OR LOSS, CAUSED BY OR RESULTING FROM ANY ACT, EVENT, OCCURRENCE, OR CAUSE BEYOND THE REASONABLE CONTROL OF INTER INNOVATION, INCLUDING (WITHOUT LIMITATION THEREBY) ACTS OF GOD, WAR, VANDALISM, SABOTAGE, ACCIDENTS, EPIDEMICS, QUARANTINES, FIRES, EXPLOSIONS, FLOODS, STRIKES, LABOR DISPUTES, MAJOR MECHANICAL BREAKDOWN, SHORTAGES OR DELAYS IN OBTAINING OF SUITABLE PARTS OR EQUIPMENT, MATERIAL LABOR OR TRANSPORTATION, INTERRUPTION OF UTILITY SERVICES, ACTS OF ANY UNIT OF GOVERNMENT OR AGENCY THEREOF, OR ANY SIMILAR OR DISSIMILAR CAUSE, SUBJECT TO THE FOREGOING, INTER INNOVATION'S LIABILITY FOR ANY AND ALL CAUSES, CAUSES OF ACTION AND CLAIMS, WHETHER OR NOT ARISING UNDER THIS AGREEMENT, SHALL IN THE AGGREGATE NOT EXCEED AN AMOUNT EQUIVALENT TO ONE MONTH'S CHARGE PURSUANT TO THIS AGREEMENT. AS USED IN THIS PARAGRAPH, THE WORD "CAUSES" INCLUDES BUT IS NOT LIMITED TO PROVISION OF (OR FAILURE TO PROVIDE) SERVICES, NEGLIGENCE, EQUIPMENT FAILURE, AND DISCLOSURE OR DESTRUCTION OF OR DAMAGE TO, ANY CUSTOMER PROGRAMS, DOCUMENTS, DATA, INFORMATION, OR OTHER CUSTOMER PROPERTY.

8. **DEFAULT:** If either party shall be in default of its covenants under this agreement and such default continues for thirty (30) days after written notice thereof by the other party, this Agreement may thereupon be terminated forthwith by such other party upon written notice to the other provided that Inter Innovation's or CUSTOMER's option to terminate shall not be in lieu of any other remedies which Inter Innovation or CUSTOMER may have in law or in equity.

9. **GENERAL:**
a) The waiver of one default under this Agreement by either party shall not constitute a waiver of subsequent defaults.
b) No provision of this Agreement shall be deemed waived, amended or modified by either party unless such waiver, amendment or modification be in writing signed by the other party against whom it is sought to enforce the waiver, amendment or modification.
c) This Agreement shall be governed by the laws of the State of New York.
d) This Agreement constitutes the entire Agreement between the parties hereto with respect to the subject matter hereof and shall supersede all previous negotiations, proposals, commitments and writings. It may not be released or discharged except by an instrument in writing signed by a duly authorized representative of each of the parties.
e) This Agreement shall inure to the benefit of and be binding upon the respective successors and assigns, if any, of the parties hereto.
f) In the event that any of the terms of this Agreement become or are declared to be invalid or void by any court of competent jurisdiction, such term or terms shall be null and void and shall be deemed deleted from this Agreement, and all remaining terms of the Agreement shall remain in full force and effect.
g) Any and all notices to be given hereunder shall, except to the extent otherwise expressly provided herein, be in writing and shall be either delivered in person or sent by registered or certified mail, return receipt requested, to the parties at their respective addresses appearing in this Agreement, or to such other addresses as a party shall have designated by written notice to the other in the manner aforesaid.

received
6/4/84
Steven Ruppell/NC
(513)445-4773

CONTINUING AGREEMENT FOR EQUIPMENT AND SERVICES

CUSTOMER NAME

CUSTOMER NUMBER

STREET ADDRESS

CITY

STATE

ZIP CODE

D.A.O. CODE

DATE

NCR Corporation (NCR) and Customer agree that all equipment, programs, and services hereafter obtained from NCR, either directly or indirectly through the use of a leasing company, other financing institution or purchasing agency, shall be furnished only under the terms and conditions of this agreement. Unless the context otherwise requires, the term "Customer" shall mean the Customer listed above.

The terms and conditions of this agreement shall prevail in spite of any contrary printed provision of any purchase order utilized by Customer in effecting the furnishing of any equipment, programs or services and any such form, letter or order must state on the face of it:

FURNISHING OF THE EQUIPMENT, PROGRAMS AND/OR SERVICES IS DONE ONLY IN ACCORDANCE WITH AND PURSUANT TO OUR AGREEMENT DATED _____.

IMPORTANT

THESE PROVISIONS ARE INTENDED TO STATE ALL OF THE RIGHTS AND RESPONSIBILITIES BETWEEN NCR AND CUSTOMER. THEY TAKE THE PLACE OF AND SUPERSEDE ALL WARRANTIES, EXPRESS OR IMPLIED AND WHETHER OF MERCHANTABILITY, FITNESS OR OTHERWISE. THE REMEDIES PROVIDED FOR OR REFERENCED HEREIN ARE EXCLUSIVE. CUSTOMER AND NCR WAIVE ALL OTHER REMEDIES INCLUDING BUT NOT LIMITED TO, CONSEQUENTIAL DAMAGES.

This agreement shall be effective only when executed by both parties. Notice of acceptance is waived although Customer will be furnished a copy showing acceptance by NCR.

THE TERMS AND CONDITIONS ON THE SUBSEQUENT PAGES ARE PART OF THIS AGREEMENT.

EXECUTED BY (TYPE OR PRINT)

SIGNATURE

TITLE

NCR CORPORATION

AUTHORIZED SIGNATURE

1. **GENERAL** — Customer may order equipment, programs and services by submitting an order setting forth 1) the description, 2) whether to be purchased, rented or licensed, 3) any cash with order amount and if purchased, whether the remainder is to be in installments or if rented or licensed, the term, 4) the charge and 5) any other appropriate circumstance or condition. NCR reserves the right to reject any order if in its opinion it cannot comply with the description or requirements of the order. Neither Customer nor NCR shall be bound by any order until it is accepted by NCR and at such time both shall be bound and a contract shall exist in accordance with the terms of this agreement and the order. The contract, comprised of this agreement and the order shall constitute the entire agreement of the parties relating to the products or services ordered and shall supersede all prior agreements and understandings whether oral or written and all negotiations, letters, other papers and proposals except as attached to the order or specifically incorporated by reference. Any applicable NCR furnished form signed by Customer shall be a part of the contract.

This agreement may not be changed or modified in any way subsequent to the date of execution except by an instrument in writing signed by the Customer and accepted by NCR. No contract or amendment entered into after this agreement shall amend by implication any provision of this agreement. Any notices required or authorized to be given shall be deemed to be given when mailed by certified or registered mail, postage prepaid, as follows: if to the Customer, to the Customer's address as shown on the face of this agreement; if to NCR, to its local District Office. This agreement shall remain in effect until terminated by either party on 30 days prior written notice. Termination shall not operate to terminate any contract then outstanding.

If any provision of this agreement, or any contract, is illegal, invalid or void under any applicable state law it shall be considered severable, remaining provisions shall not be impaired and the agreement or contract shall be interpreted as far as possible so as to give effect to its stated purpose.

2. **DELIVERY** — NCR will use its best efforts to accomplish delivery by any indicated delivery date. However, unless otherwise specifically provided, NCR will not be liable for any expenses or damages incurred as a result of actual delivery or certification after such indicated date, if any. Customer agrees to pay the appropriate NCR distribution charge, and in the case of rented equipment back to the distribution point and due to any change of location of the equipment. Such charges shall be added to the first invoice and paid by Customer. Customer agrees to

pay any applicable installation and de-installation charge. Title to (and possession of unless otherwise stated on the order) traded-in equipment will pass to NCR on delivery of the ordered equipment.

3. **RENTAL AND LICENSE TERM AND CHARGES** — Each contract for rental equipment or a licensed program shall become effective on the date of its acceptance by NCR and shall remain in force, except as otherwise provided, for the period of the term and thereafter until terminated as provided in section 18. The term of equipment rental shall begin on the first day of the month for which the full rental is paid. The rental charge shall begin immediately upon certification or delivery of the equipment by NCR or on the expiration of the previous term as the case may be. The term of a program license shall be monthly if not otherwise stated. The term shall begin on delivery, or when a test period is provided, the term shall begin on expiration of the test period or when put in productive use, whichever is earlier. Basic monthly rent, license fees and other scheduled charges shall be billed in advance, and other charges shall be payable as accrued. Charges for a fractional part of a month shall be computed at the rate of 1/30th of the monthly charge.

Rates may be changed after the expiration of the term or period for which paid on 30 days prior written notice. Rates may be increased during or before the initial term on 90 days prior written notice provided that (a) if an equipment rental increase exceeds the increase in NCR's maintenance charges or (b) if the license fee is increased, Customer may terminate the contract by notice given within 30 days after receipt of notification from NCR.

Payment of the rent or license fee entitles Customer to the applicable use of the equipment or program.

4. **PURCHASE TERMS** — NCR shall invoice the Customer for the purchase price balance or, if applicable, the first installment of it upon certification or delivery of the equipment by NCR. The entire unpaid purchase price balance shall, at NCR's option, become due and payable upon refusal to accept delivery when tendered, to make any payment when due or if Customer sells, conceals, removes, damages or destroys the equipment or attempts to do so prior to final payment of the entire price. Customer may prepay the time payment balance in advance and shall in such event be entitled to a credit against the finance charge determined in accordance with the rule of "78's".

5. **BILLING AND PAYMENT** — All invoices shall be due and payable in accordance with their terms. Failure to pay any amount when due shall entitle NCR to collect the

late charge or interest stated on the invoice. If it is necessary to refer any claim to an attorney not an employee of NCR, Customer agrees to pay reasonable attorney's fees if Customer is found to be in default and such is allowed under applicable state law. If customer requests a postponement in delivery, the price may be subject to any increase.

6. **TAXES** — The stated rental charges, purchase price, maintenance fees or charges, program license fees, system service and programming charges or other amounts to be paid pursuant to any contract do not include any Federal, State, County or local sales, use or other excise tax however designated, whether levied on seller or buyer and whether based on such price, charge, the equipment, part, product or service or their use or the contract. Any such taxes and interest on them (if not due to NCR's delay) required to be paid by NCR shall be added to the invoices. Customer shall pay all personal property taxes assessed after delivery of any equipment, part, product, program, or service except if equipment is rented NCR will pay personal property tax. Any taxes to be paid by Customer but in fact paid by NCR shall be reimbursed to NCR. In the event any taxes to be paid by Customer but levied on NCR are not paid until audit, NCR may then invoice Customer.

7. **ADVANCE PAYMENT** — The advance payment plus any interest credited to the Customer shall be applied against the purchase price or the first and subsequent rental or license fee payments until the total amount has been exhausted.

8. **SUPPLIES** — The price, monthly rental charges, the warranty, maintenance, programs or other services does not include furnishing of supplies or other expendable items unless otherwise indicated. NCR agrees to sell to the Customer, at NCR's then established prices and upon NCR's regular invoice terms, supplies or other expendable items so long as NCR has them available for sale. Damage to equipment or other loss sustained due to use of supplies not meeting NCR specifications shall be the sole responsibility of Customer.

9. **PATENT, COPYRIGHT AND TRADE SECRET INDEMNITY** — NCR will defend, at its expense, and will pay the cost and damages made in settlement or awarded as a result of any action brought against Customer based on an allegation that the equipment or any unit or part of it or any program furnished by NCR infringes a United States patent, copyright, or trade secret, if NCR is notified promptly by the Customer in writing of any such action or allegation of infringement, and if NCR shall have had sole control of the defense of any such action and all negotiations for its settlement or compromise. If a final

injunction shall be obtained against Customer's use of the equipment or any unit or part of it or program by reason of such infringement, or if in NCR's opinion the equipment or any unit or part of it or any program is likely to become the subject of a claim of such infringement, NCR will, at its option and at its expense, 1) procure for the Customer the right to continue using the equipment, unit or part, or program, 2) replace or modify the same so that it becomes noninfringing, or 3) if 1) and 2) are not feasible, terminate the rental or license or if purchased, repurchase the equipment on a depreciated (5-year straight line) basis. NCR shall not have any liability to Customer under any provision of this clause if any infringement or allegation thereof is based upon the use of any program or the equipment or any unit or part of it in combination with any program or equipment or any unit or parts of it not furnished by NCR or if the equipment is used in a manner for which the equipment or units or parts of it were not designed. The above states the entire liability of NCR with respect to infringement of patents, copyrights, or trade secrets by any program or by the equipment or units or parts of it, or by their operation.

10. **NCR INTELLECTUAL PROPERTY** —

a. Definitions — "Program" shall mean instructions designed to achieve a certain result, whether denominated software or firmware, wherever resident and on whatever media and all related documentation furnished to Customer. "Programming Services" is creating a program or modifying an existing program to perform particular functions or to function in a particular manner for Customer. "NCR Intellectual Property" shall include 1) all Programs furnished by NCR whether specifically licensed or furnished as part of equipment rented or purchased and software services for them, except Programming Services, and 2) all other material furnished by NCR and any copies of it relating to the use and service of equipment, including the information contained therein.

b. This subsection applies to NCR Intellectual Property. NCR Intellectual Property shall remain confidential and the proprietary property of NCR and is furnished to customer only on a license basis. Customer agrees to continue to treat it as such, except such as may be established to be in the general public domain or which Customer may be required to disclose pursuant to judicial or governmental action. Customer shall acquire no rights in NCR Intellectual Property except to use it solely for the purpose of use with, and only during the time Customer uses designated equipment or for any period covered by a license fee in accordance with NCR's software license policies in effect at the time of the contract. Customer shall not use or cause to be used any NCR Intellectual Property for the benefit of any other party whether or not for a

consideration unless otherwise agreed. Customer shall not sublicense, sell, rent, loan, disclose or otherwise communicate, make available or assist any unauthorized third party to use, NCR Intellectual Property or any part or modification thereof or make it available to any person not in the employment of Customer. Customer shall use it only in connection with the designated equipment unless on backup equipment during the time required, and shall make no copies without the prior consent of NCR. Customer shall take all reasonable precautions to maintain the confidentiality of NCR Intellectual Property, but not less than that employed to protect its own proprietary information unless otherwise agreed to by NCR in writing. As to copies made by Customer with the consent of NCR, Customer agrees to duplicate and include NCR's copyright notice and any NCR proprietary notice on all copies, including copies in machine readable form, and to maintain records of the location of copies of programs.

If the equipment is rented and rental is terminated (except by purchase), or if the equipment is purchased and Customer ceases to use it, Customer shall thereafter cease to use any NCR Intellectual Property or any facsimile thereof, delete it from its library, return to NCR or destroy all NCR Intellectual Property, except for a copy retained for archival purposes, and notify NCR in writing.

If Customer desires to sell purchased equipment to a third party, Customer shall notify NCR in writing and may not transfer or provide NCR Intellectual Property to the purchaser from Customer without the prior agreement of NCR which shall be granted only if the purchaser shall have agreed in writing: (1) to the provisions of this section 10 and (2) to the continued payment of periodic license fees and/or the payment of any relicense fee in effect at the time of transfer.

NCR shall have and may cumulatively exercise all rights as it might have at law or in equity for the protection of NCR Intellectual Property, including an injunction enjoining the breach or threatened breach of this section.

c. This subsection applies to Programming Services furnished by NCR. Customer shall be the owner of the product of Programming Services but NCR may retain copies, disclose and further use the product of the services. Customer's programs (except those furnished by NCR), reports, printouts and other data generated by a program (except a compiler) are not products of Programming Services for purposes of this subsection.

11. OWNERSHIP OF EQUIPMENT AND RISK OF LOSS — If the equipment is rented, title shall remain in NCR. Customer shall not do anything prejudicing NCR's ownership; nor fail to do anything reasonably necessary to

protect NCR's ownership. Customer agrees to execute any document necessary or desirable, in NCR's opinion, to ensure its title and ownership. This agreement, any contract, and any unit of equipment may not be assigned, sublet or transferred by Customer without NCR's prior written consent. If the equipment is purchased, title to the equipment shall pass to the Customer only upon NCR's receipt of payment of the full purchase price balance. NCR warrants title to be clear, free and unencumbered. NCR reserves, and the Customer hereby grants to NCR, a purchase money security interest in each unit of the equipment in the amount of its purchase price, and such security interest shall be satisfied by payment of the purchase price balance in full. NCR may file a financing statement (NCR being constituted an agent of Customer to sign on Customer's behalf or Customer shall execute if requested by NCR) with appropriate state and/or local authorities in order to perfect NCR's security interest. Any such filing shall not constitute acceptance of a contract by NCR.

Until delivery, NCR assumes all risk of loss. Upon delivery Customer assumes the risk of loss or damage for purchased equipment except such as caused willfully or negligently by NCR. NCR shall retain the risk of loss or damage for rented equipment except such as caused willfully or negligently by Customer.

12. EXCUSED PERFORMANCE — Neither party shall be deemed to be in default of any provision hereof or be liable for any delay, failure in performance, or interruption of service resulting directly or indirectly from acts of God, civil or military authority, civil disturbance, war, strikes, fires, other catastrophies, or other cause beyond its reasonable control.

13. MAINTENANCE OF EQUIPMENT — NCR shall perform remedial maintenance during the applicable maintenance period:

a. for rented equipment

b. for purchased equipment (except purchase of rented equipment)

(1) for a 90-day warranty period beginning on delivery or certification, and

(2) after the 90-day warranty period at NCR's then current rates, unless Customer notifies NCR on or before the 60th day of the warranty period that it does not desire continued maintenance coverage. The coverage shall continue until terminated pursuant to Section 18(a).

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Remedial maintenance during other periods may be available at either a scheduled or hourly basis at NCR's then current wages. Use of equipment above designated levels may require additional charges for equipment on rent or maintenance.

Customer shall prepare prior to delivery of equipment, and thereafter maintain at its expense, the site of the equipment in accordance with NCR specifications. Customer shall provide at the site adequate and suitable working facilities and space for maintenance personnel. As to equipment maintained by NCR, only NCR shall perform service on it. Replaced parts shall become or remain the property of NCR. With respect to any alteration or attachment, as defined in section 17, to NCR equipment, NCR will provide maintenance and repair service for the unaltered portion of the equipment unless an alteration or attachment creates a safety hazard or renders maintenance and repair impractical. If an alteration, attachment, use of supplies not meeting NCR specifications, use of unsupported software, use of software not furnished by NCR, or modifications to NCR supported software not performed by NCR results in an increase in NCR's maintenance of NCR equipment, such increased maintenance will be billed at the appropriate increased rate.

Repair or replacement of purchased equipment on maintenance or warranty necessitated by fire originating outside of NCR furnished equipment, water, other casualty, acts of God, Customer's movement or negligence or acts of a third party is not included in the warranty or maintenance service charge and shall be provided at Customer's expense. Repair or replacement of rental equipment necessitated by Customer's movement or negligence is not included in the rent and shall be provided at Customer's expense.

NCR's liability to the Customer resulting from the performance of maintenance service shall be limited to restoring the equipment covered by this agreement to good operating condition. NCR shall have no obligation to perform any service outside the United States unless otherwise agreed.

14. OPERATION —

a. General — The equipment will comply with applicable safety and other governmental regulations in effect at the time of manufacture. Units of equipment sold as new may be composed in whole or in part of used components which are warranted the equivalent of new.

b. Equipment Functioning — If the equipment is purchased (except for purchase of rented equipment), then for 90 days following certification or delivery, NCR

warrants the equipment to be in good working order and will at its expense keep the equipment in good operating order and repair by performing maintenance in accordance with Section 13. If the equipment is rented, NCR agrees to keep the equipment in good operating order and repair by performing maintenance in accordance with Section 13. THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS. NCR'S SOLE OBLIGATION UNDER ANY WARRANTY IS LIMITED TO SUCH MAINTENANCE.

c. Programs And Programming Services — A Warranted Program, when operating in conjunction with unaltered associated Programs and designated equipment and within required operational conditions, will comply with customer-level documentation in effect on the date the issue was furnished to Customer. Customer shall determine compliance during the applicable test period. If, during the test period, the Program is found to be not complying, i.e. a "Problem" exists, NCR shall effect a resolution (which may be a subsequent issue) or the license may be terminated. After acceptance (or delivery when the Program is not warranted), NCR will furnish, and its obligation shall be limited to furnishing, software services under its then current policies and rates. Software services for Programs may be chargeable (even as to Problems inherent in the Program when furnished, but not occurring during the test period) and for Programming Services will be chargeable. NCR may change its policies on Programming Services and software services and reclassify software services on six months notice given by general publication. Some reclassifications may constitute a discontinuation of services. NCR assumes no responsibility for programs which have been altered or modified. THERE ARE NO WARRANTIES OR MERCHANTABILITY OR FITNESS. NCR'S SOLE OBLIGATION IS LIMITED TO FURNISHING SOFTWARE SERVICES UNDER ITS THEN CURRENT POLICIES AND CHARGES.

d. Limitations — Customer shall arrange for back-up equipment or service. Customer shall be solely responsible for proper audit and recovery routines and procedures. NCR shall not be liable for any expense or damages incurred by Customer, whether internal to Customer or paid by Customer to any third party, which may arise out of failure of the equipment to function or due to any malfunction of equipment or program upon whatever cause of action any claim is based except that NCR shall be liable for only bodily injury occasioned solely by the negligence or willful acts of NCR in design, manufacture, installation or servicing of the equipment. IT IS ACKNOWLEDGED THAT THESE LIMITATIONS PERMIT NCR TO PROVIDE EQUIPMENT, PROGRAMS AND SERVICES AT LOWER RATES THAN IT OTHERWISE COULD AND SUCH LIMITATIONS ON LIABILITY ARE REASONABLE.

e. **Equipment Rental Credit** — If the equipment is rented and if a component of the equipment being maintained becomes inoperative and remains inoperative for a period of twenty-four (24) scheduled maintenance hours or more from the time Customer notifies NCR until it is returned to good operating condition (48 hours in Alaska and Hawaii), NCR shall grant a credit to Customer for each inoperative hour at the rate of 1/720th of the basic monthly rental charge for such component. A like credit shall be granted for each interconnected NCR component being maintained which is not usable as a result of the breakdown. Customer shall not be entitled to the credit if the cause of inoperation is due to the fault or negligence of Customer, fire originating outside of NCR furnished equipment, water, and other acts of God, civil or military authority or the act of any third party.

15. SYSTEM IMPLEMENTATION — "System" shall mean an integrated group of equipment supplied or specified by NCR and the NCR furnished programs utilized with it. "Installation Service" is installation and operational training and assistance. NCR's liability resulting from performance of Installation Service shall be limited to re-performing any such services. Customer has the responsibility for implementing and operating the System. Installation Services furnished to Customer are to facilitate implementation of the System by Customer and are not to be construed as evidencing any obligation of NCR for implementing or operating the System.

16. SYSTEM CAPABILITY — Any proposal or recommendation by NCR for the equipment or programs ordered respecting the capability of the System to perform applications of, or produce certain results for, Customer is based on NCR's best efforts to provide an operational system for Customer. It shall constitute a commitment on the part of NCR only if a) it is attached to the Order or specifically incorporated by reference AND b) Customer cannot itself verify system capability in advance of equipment delivery.

CUSTOMER ACKNOWLEDGES ITS OBLIGATION TO NCR TO VERIFY SYSTEM CAPABILITY IN ADVANCE OR DELIVERY WHENEVER REASONABLY POSSIBLE.

When programming is to be performed by Customer prior to delivery of the equipment, Customer agrees that it has, as of the date of the order or will have prior to delivery, a sufficient number of competent and adequately trained personnel to accomplish evaluation and implementation and thereafter to operate the system efficiently. Because of this capability and because it has the better knowledge of its operations, methods and volumes, Customer has, or will have prior to delivery of the equipment, the better expertise to itself evaluate system capability.

If Customer can verify system capability in advance of delivery, failure to inform NCR in writing prior to delivery that the system will not perform as specified will be conclusively deemed to be an agreement by the Customer that it is suitable for the intended applications and will produce the anticipated results and no claim of reliance on any NCR recommendation or proposal will be made.

In the event that prior to delivery it is mutually determined that the system will not perform in accordance with specifications previously furnished to Customer or substantially as represented, Customer may at its option accept revised performance criteria or terminate the contract without liability of either party except for return of any advance payment when equitable.

In the event that compliance with specifications cannot be verified by Customer in advance of delivery, and on delivery it appears that the system cannot perform as specified, then the contract 1) may be terminated by either party without liability except any payments previously made to NCR shall be refunded, less the reasonable value of services received from the system or 2) may be amended to provide equipment and/or programs necessary to perform as represented.

17. OTHER EQUIPMENT AND PROGRAMS — Customer may not make any alteration (any change made to the physical, mechanical or electrical arrangements of the equipment whether or not additional devices or parts are required) or attachment (the mechanical, electrical or electronic interconnection of non-NCR equipment marketed by others) to rented equipment unless specifically authorized in writing by NCR. In the event of any attachment or alteration to NCR equipment or in the event that a program not serviced by NCR is used or any modification is made to any NCR serviced program, or any program is used not furnished by NCR, NCR assumes no responsibility and shall not be liable for a) the proper functioning of the system or of any unit of equipment except for maintenance service under Section 13 or b) the capability of the system or c) infringement of any patent resulting from the combination. Notwithstanding anything to the contrary, Customer assumes all risk of loss or damage to NCR furnished equipment arising out of such attachment or alteration.

18. TERMINATION — A contract for specific equipment, programs or services resulting from an accepted order may be terminated under the following conditions:

a. Either party may terminate a program license at the expiration of the term, or thereafter, on 30 days prior written notice. Either party may terminate a rental contract by written notice given 30 days before the expiration of the

initial term or any yearly extension; otherwise the term shall be extended yearly. Software service and equipment maintenance shall be continued on the expiration of the period set forth on the invoice for yearly periods unless (i) either party gives written notice to the other 30 days prior to the anniversary date of its intention to terminate service, (ii) as to equipment maintenance, the equipment is not in good condition on the effective date of any renewal period. Any equipment maintenance contract may be terminated by either party on 30 days notice.

Until terminated, Customer agrees to pay the applicable rent, license fee, equipment maintenance, software service fee or other charges. No program license shall be considered terminated until customer either returns or certifies destruction of the program.

b. Either party may, at its election and without prejudice to any other right or remedy, terminate the contract upon the filing of a petition in bankruptcy by or against the other, or should the other make an assignment for the benefit of creditors, or should a receiver be appointed or applied for by the other.

c. NCR may, at its election, and without prejudice to any other right or remedy available by law or under this Agreement unless pursuant to Section 16, treat any contract as terminated by Customer in the event the Customer cancels or attempts to cancel the contract prior

to delivery, refuses delivery, fails to pay after 10 days prior written notice any payment due, or wilfully violates the confidentiality provisions of Section 10b. In such event, NCR may without further notice enter Customer's premises without liability for trespass or damage and reclaim and/or repossess the equipment and any NCR furnished program and the media they are on. In the case of a rental contract, program license or software services contract, NCR shall be entitled to the total amount due under it less amounts previously paid and costs which will not be incurred thereafter by NCR.

d. In accordance with Section 16.

19. **DISPUTES** — Any controversy or claim, including any claim of misrepresentation, arising out of or related to this Agreement and/or any contract hereafter entered into between NCR and Customer, or the breach thereof, or the furnishing of any equipment or service by NCR to Customer, shall be settled by arbitration. The arbitration shall be conducted by a single arbitrator under the then current rules of the American Arbitration Association. The arbitrator shall be chosen from a panel of persons knowledgeable in business information and data processing systems. The decision and award of the arbitrator shall be final and binding and the award so rendered may be entered in any court having jurisdiction thereof. The arbitration shall be held and the award shall be deemed to be made in the city where the NCR district office procuring the order is located.

The following is an explanation of the terms and conditions contained in the standard TRW Service Agreement (S.A.) (Form No. P90-0002026 9/82).

The Service Agreement is a contract between TRW Customer Service Division (TRW) and a Customer in which TRW agrees to provide Covered Maintenance service to Customer under the terms, conditions and at the prices contained in the Service Agreement and its Exhibits.

Article 1 - Term: The Service Agreement becomes effective on the Effective Date, which is shown on the face of the Service Agreement. The Service Agreement remains in force for a period of one year from the Effective Date unless it is terminated under the terms of Article 2 or 10. The first year the Service Agreement is in force is called the Initial Term.

Article 2 - Automatic Renewal: After the Initial Term (the first year) the Service Agreement is automatically extended for additional 1 year periods (Extended Term) unless TRW or Customer has given written notice to terminate the Service Agreement. The written notice to terminate must be given ninety (90) days before the expiration of the Initial Term or an Extended Term. This means that unless the Customer is terminating under Article 10, he may only terminate at the expiration of the Initial Term or an Extended Term.

Article 3 - Maintenance Period: Each customer will select the frequency at which he wishes to be billed (Monthly, Quarterly, Annually). The billing frequency is shown on Exhibit A to the Service Agreement. The Maintenance Period is the same period of time as the billing frequency.

Article 4 - Maintenance Service: The service we provide consists of Covered Maintenance and Billable Call Maintenance. TRW agrees to provide Covered Maintenance on the Equipment listed on Exhibit A to the Service Agreement and Billable Call Maintenance as explained in Article 5. Maintenance as explained in Article 6.

Article 5 - Covered Maintenance: That periodic and remedial (on-call) maintenance that TRW deems reasonably appropriate and necessary to keep the customer's equipment operating during TRW normal working hours on all non-holiday week-days, Monday thru Friday or as specified in Exhibit A. Service performed outside of the hours specified in the Service Agreement or Exhibit A is not covered maintenance but Billable Call maintenance and the customer will be charged.

Article 6 - Billable Call Maintenance: Any maintenance other than Covered Maintenance performed by TRW and includes, but is not limited to, the following types of Maintenance:

(f) **Reconditioning required when repair and parts replacement cannot keep Equipment in operating condition.** Exclusions are not limited to this list-

Article 8 - Parts: Covered Maintenance includes the replacement of unserviceable parts with the exceptions for supplies. These exceptions are expendable items but not limited to ink rollers, ribbons, paper, etc. If the maintenance is Billable Call Maintenance, the Customer is charged to the replacement part at TRW's current replacement part price. Exception: If the maintenance is Billable Call because it was performed outside the Service Agreement hours, there is no charge for parts replacement. All replaced parts become the property of TRW.

Article 9 - Charges to Customers:

(a) Charges for Covered Maintenance: The rates for Covered Maintenance are set forth on Exhibit A of the Service Agreement.

(b) Charges for Billable Call Maintenance: The Billable Call Rates are TRW's then current Billable Call Rates in effect and are shown on Exhibit B to the Service Agreement. Customer agrees to pay a minimum charge equal to two hours on Billable Calls plus travel charges.

(c) Charges for Travel: Travel charges consist of two things: travel time and travel expense. Travel time is the time required to travel to and from customer's site and the service location. Travel expense is the per mile charge and any other travel costs (Tolls, Parking, Air Fare, etc.).

If the maintenance is Covered Maintenance there is no charge to Customer for travel time or travel expense.

If the maintenance is Billable Call Maintenance, travel time is always charged.

If the maintenance is Billable Call Maintenance, travel expense is, with one exception, always charged. Exception: The maintenance is Billable Call because it was performed outside the Service Agreement hours. In this case there is no charge for travel expense.

(d) Taxes: Customer agrees to pay all Federal, State, and local taxes on our invoices.

(e) Charge for Equipment or Specification Changes: Charges for maintenance may be increased or decreased if specifications are changed or features and/or attachments are added.

Article 10 - Changes in Charges for Covered Maintenance: TRW may change the charges for Covered Maintenance effective at the beginning of any Maintenance Period. If the Customer wishes, he may terminate the Service Agreement by giving TRW thirty (30) day's written notice. The Customer's notice to terminate must be received within thirty (3) days of the Customer's receipt of the first invoice with changed charges. The Service Agreement will terminate at the end of the thirty day's notice. TRW may change the charges for Billable Call Maintenance without notice.

The Customer may give notice to terminate beyond the thirty day period, in which case the Service Agreement will terminate on the termination date contained in the notice and Customer will pay the changed charges until termination.

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Article 11 - Payment: TRW will invoice Customer in advance for each Maintenance Period. Customer agrees to pay all outstanding bills on or prior to the Effective Date. TRW will invoice Billable Call Maintenance when performed. Customer will pay all subsequent bills according to their stated terms. TRW may assess extra charges for late payments.

Article 12 - Engineering Changes: Customer agrees to allow TRW to make Engineering Changes and enhancements to the Equipment and to pay TRW's normal prices for same.

Article 13 - Customer Responsibility: Customer agrees that he will be responsible for performing the maintenance activities listed on Exhibit C to the Service Agreement.

Article 14 - Disclaimer of Warranty: TRW makes no warranty of any kind, express or implied, including without limitation, any warranty of merchantability or fitness for a particular purpose with respect to the subject matter hereof, maintenance to be performed by TRW pursuant to the terms hereof, or parts to be supplied hereunder.

Article 15 - Limitation of Liability: Customer agrees that TRW's total liability hereunder, including but not limited to, any alleged negligence of TRW shall not exceed the amount paid for Covered Maintenance by Customer to TRW attributable to the particular unit of Equipment directly involved for the three (3) months immediately preceding the occurrence given rise to any claim by Customer. In no event will TRW be liable for any incidental or consequential damages, including with limitation, loss of use, loss of data, loss of profit, loss of monies deposited to or removed from Equipment or any affiliated components, or liability to third parties, however caused, whether by the negligence of TRW or otherwise.

Article 16 - Force Majeure: TRW shall not be liable to Customer for any delay or failure by TRW to perform its obligations under this Agreement or otherwise if such delay or failure arises from any cause or causes beyond the reasonable control of TRW, including but not limited to labor disputes, strikes, other labor or industrial disturbances, acts of God, floods, lightning, shortages of materials, rationing, utility or communication failures, earthquakes, casualty, war, acts of the public enemy, riots, insurrections, embargoes, blockages, actions, restrictions, regulations or orders of any government, agency or subdivision thereof, or temporary unavailability of qualified service personnel at TRW's office due to service call(s) received before Customer's call.

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Article 17 - Termination for Bankruptcy: TRW shall have the right at its option to terminate this Agreement by written notice to Customer in the event;
(i) of an assignment by Customer for the benefit of creditors; (ii) of Customer's admitted insolvency; (iii) of Customer's dissolution or loss of charter by forfeiture; (iv) Customer is adjudged bankrupt or insolvent by a United States court of competent jurisdiction; (v) a trustee or receiver is appointed for Customer or its assets or any substantial part thereof; (vi) Customer files a voluntary petition under any bankruptcy or other similar law providing for its reorganization, dissolution or liquidation or, (vii) Customer shall consent to the appointment of a receiver or a trustee for itself or its assets or of any substantial part thereof.

Article 18 - Termination for Non-Payment: TRW may terminate this agreement at any time by written notice for non-payment of any amount due for service invoiced and rendered under this agreement.

Article 19 - Notices: Any notice, request, instruction or other document pertaining to this Agreement shall be in writing and delivered personally or sent by U.S. Mail, postage prepaid, and addressed as follows:

If to TRW: TRW Customer Service Division

15 Law Drive

Fairfield, New Jersey 07006

Attention: Vice President

Either party may change the address to which notice is to be sent by giving written notice thereof to the other party.

Article 20 - General: This Agreement shall be governed by the laws of the State of California and constitutes the entire agreement between the parties hereto with respect to maintenance of Equipment, and shall supersede all previous or contemporaneous negotiations, commitments and writings with respect to matters set forth herein. It may only be modified by a writing signed by authorized representatives of both parties. The terms and provisions of this Agreement shall prevail over any conflicting, additional or other terms appearing on any purchase order submitted by Customer at any time. Neither this Agreement nor any rights hereunder may be assigned or otherwise transferred by either party, except to any corporation controlled by or under common control with the assigning party, or in connection with the acquisition of, or the sale of substantially all of, the assets of the business to which this Agreement pertains.

Service Agreement



CUSTOMER

Street Address

City State Zip

DATE SERVICE AGREEMENT NUMBER

This SERVICE AGREEMENT (hereinafter "Agreement") is entered into by and between Customer and TRW Inc., an Ohio corporation, acting through its TRW Customer Service Division, with offices located at 15 Lud Drive, Fairfield, New Jersey 07006 (hereinafter "TRW").

Subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. Term: This Agreement shall become effective on the date shown above (hereinafter "Effective Date"), and, unless sooner terminated as hereinafter provided, shall remain in full force and effect for an initial term of one (1) year from such date (hereinafter "Initial Term").

2. Automatic Renewal: Upon expiration of the Initial Term, this Agreement shall be automatically extended on a year-to-year basis unless ninety (90) days prior to the expiration date of the Initial Term, or any extended term, a party hereto gives written notice to the other party of its termination of this Agreement as of such expiration date.

3. Maintenance Period: The term "Maintenance Period" as used herein means the time from the Effective Date to the expiration of the Initial Term and each successive like period of time as specified in Exhibit A.

4. Maintenance Service: The term "Maintenance Service" as used herein means Covered Maintenance and Billable Call Maintenance as hereinafter defined, performed by TRW in respect of the equipment identified in Exhibit A (hereinafter "Equipment").

5. Covered Maintenance: The term "Covered Maintenance" as used herein means the periodic maintenance TRW deems reasonably appropriate and necessary to keep Customer's Equipment operating and all on-call remedial maintenance performed by TRW hereunder with respect to the Equipment during TRW's normal working hours on all non-holiday weekdays, Monday through Friday or as otherwise specified in Exhibit A. For the purposes of this Agreement, "holiday" shall mean any of the eight (8) days that TRW shall designate as holidays in writing to Customer prior to each Maintenance Period or as specified in Exhibit A.

6. Billable Call Maintenance: The term "Billable Call Maintenance" as used herein means any maintenance, other than Covered Maintenance, performed by TRW and includes, but is not limited to, the following types of maintenance:

- (a) Work requested by Customer for rearrangement, such as additional wiring, moving other equipment or cables, relocating Equipment or repairing a previously prepared site or station to meet operational;
- (b) Electrical work external to the Equipment;
- (c) Refueling of Equipment;
- (d) Adding or removing accessories, attachments or other devices;
- (e) Work on Equipment caused by maintenance or repair performed by other than authorized TRW personnel or resulting from improper operation by Customer personnel; and
- (f) Specific requests by Customer for maintenance in addition to Covered Maintenance requirements.

7. Exclusions from Covered Maintenance: Covered Maintenance does not include:

- (a) Maintenance of accessories, attachments, supplies, machines or other devices that are not Equipment items;
- (b) Repair of damage that is not Equipment damage, including but not limited to, damage resulting from accident, transportation, neglect or misuse, lightning, failure or fluctuation of electrical power, air conditioning or humidity control, telephone equipment or communication lines failure, failure of foreign instrument equipment, use of external materials, such as receipt forms, deposit envelopes and currency which do not adhere to TRW specifications, or causes other than ordinary use;
- (c) Specification changes;
- (d) Services which are impractical for TRW to render because of alterations in the Equipment made by persons other than TRW without receiving TRW's prior written approval; the replacement of Equipment by mechanical or electrical means to protect the machine or device, or the physical inaccessibility of Equipment;
- (e) Any services in respect of software or firmware programming or any repair of any damage to Equipment caused by software or firmware programming; and
- (f) Reconditioning required when repair and parts replacement cannot keep equipment in operating condition.

8. Parts: Covered Maintenance shall include replacement of unserviceable parts, except for replaceable cartridges, such as, but not limited to, ink rollers, ribbon cartridges, special paper and magnetic tape cassettes. In the case of Billable Call Maintenance, replacement of unserviceable parts shall be replaced at TRW's replacement part prices current at the time of replacement, unless the maintenance involving replacement is Billable Call Maintenance solely because of the hour or day when performed, in which event the maintenance shall include parts replacement as in the case of Covered Maintenance. All replaced parts become the property of TRW.

9. Changes to Customer:

- (a) Changes for Covered Maintenance: The applicable rates for Covered Maintenance shall be set forth in Exhibit A hereto.
- (b) Changes for Billable Call Maintenance: The applicable rates for Billable Call Maintenance are the hourly Billable Call Rates in effect for the hour or day such service is performed (including, where applicable, night, weekend and holiday rates). Exhibit B hereto sets forth the TRW standard Billable Call Rates presently in effect.
- (c) Changes for Travel: Customer shall pay for travel time and travel expenses in connection with Billable Call Maintenance. Travel time will be charged to Customer at the hourly Billable Call Rate then in effect for the hour or day the travel is performed. Travel expenses will be charged as incurred and includes tolls, parking and other out-of-pocket costs plus mileage at the then current rates. There will be no additional charge to Customer for travel expense incurred in connection with Covered Maintenance or if the maintenance is Billable Call Maintenance solely because of the hour or day when performed.
- (d) Taxes: All maintenance charges are tax liable of applicable federal, state or local taxes. Customer's tax, value or reimbursement TRW for any such taxes and TRW may add such taxes to the invoices submitted to Customer by TRW as provided in Section 9 (f) hereto.
- (e) Change for Equipment or Specification Changes: All maintenance charges are subject to increase or decrease upon any change in the specifications for Equipment or upon addition of features or attachments hereto.

10. Changes in Charges: TRW may change the charges for Covered Maintenance effective at the beginning of any Maintenance Period. Customer may terminate this Agreement within thirty (30) days after receipt of the first invoice with changed

charges by giving TRW thirty (30) days written notice of its intention to terminate, and this Agreement will terminate as of the date for termination specified in such Customer's notice to TRW. The date for termination shall be the third day, whichever last occurs, TRW may change the charges for Billable Call Maintenance without notice.

11. Payment: TRW will invoice Customer in advance for each Maintenance Period for Covered Maintenance as specified in Exhibit A hereto. Such invoice will include pro-rata charges for any Covered Maintenance Period or prior to the Effective Date. Approximately ten (10) days following the Effective Date of this Agreement, TRW will invoice Customer for maintenance services, if any, performed by TRW prior to the date on which this Agreement becomes effective for which TRW has not previously submitted an invoice to Customer and for Covered Maintenance for the period from the Effective Date to the beginning of the next Maintenance Period as specified in Exhibit A. TRW will invoice Customer for Billable Call Maintenance as incurred and Customer shall pay such invoices within the time specified therein. Customer shall pay invoices for Covered Maintenance including any invoices outstanding on the Effective Date of this Agreement, on or prior to the commencement of the Maintenance Period. In addition to any other remedies allowed by law, TRW may assess charges for late payment.

12. Engineering Changes: All engineering changes or enhancements available to purchasers of Equipment shall be made available to Customer at TRW's normal prices, and on TRW's normal terms and conditions for such changes or enhancements. Within thirty (30) days after request by TRW, Customer agrees to provide TRW with access to all Equipment for installation of such changes. Access for such changes shall be provided by Customer during TRW's normal working hours, or as otherwise mutually agreed. TRW agrees to use its best efforts not to interfere with Customer's data collection operations in the process of making such engineering changes.

13. Customer Responsibility: Exhibit C hereto sets forth the responsibilities of Customer which Customer undertakes to perform, and the performance of which by Customer's employees shall be deemed to be authorized maintenance for purposes hereof.

14. Disclaimer of Warranty: TRW makes no warranty of any kind, express or implied, including without limitation, any warranty of merchantability or fitness for a particular purpose with respect to the subject matter hereof, maintenance to be performed by TRW pursuant to the terms hereof, or parts to be supplied hereunder.

15. Limitation of Liability: Customer agrees that TRW's total liability hereunder, including but not limited to, any alleged negligence of TRW shall not exceed the amount paid for Covered Maintenance by Customer to TRW attributable to the particular unit of Equipment directly involved for the three (3) months immediately preceding the occurrence giving rise to any claim by Customer. In no event will TRW be liable for any incidental or consequential damages, including without limitation, loss of use, loss of data, loss of profit, loss of money deposited to or removed from Equipment or any affiliated components, or liability to third parties, however caused, whether by the negligence of TRW or otherwise.

16. Force Majeure: TRW shall not be liable to Customer for any delay or failure by TRW to perform its obligations under this Agreement or otherwise if such delay or failure arises from any cause or causes beyond the reasonable control of TRW, including but not limited to labor disputes, strikes, other labor or industrial disturbances, acts of God, floods, lightning, shortages of materials, rioting, utility or communication failures, earthquakes, casualty, war, acts of the public enemy, host, sabotage, terrorism, blockades, actions, restrictions, regulations or orders of any government, agency or subdivision thereof, or temporary unavailability of qualified service personnel at TRW's offices due to service calls received before Customer's call.

17. Termination for Breach: TRW shall have the right at its option to terminate this Agreement by written notice to Customer in the event: (i) of an assignment by Customer to a third party of the Agreement; (ii) of Customer's voluntary liquidation, dissolution or loss of charter by forfeiture; (iii) of Customer's dissolution or loss of charter by a United States court of competent jurisdiction; (iv) a trustee or receiver is appointed for Customer or its assets or any substantial part thereof; (v) Customer files a voluntary petition under any bankruptcy or other similar law providing for its reorganization, liquidation or liquidation; or (vi) Customer shall consent to the appointment of a receiver or a trustee for itself or its assets or any substantial part thereof.

18. Termination for Non-payment: In addition to any other remedies TRW may have hereunder or at law, TRW may terminate this Agreement at any time by written notice for non-payment of any amount due for services rendered and rendered under this Agreement.

19. Notices: Any notice, request, instruction or other document pertaining to this Agreement shall be in writing and delivered personally or sent by U.S. Mail, postage prepaid, and addressed as follows:

If to TRW:
15 Lud Drive
Fairfield, New Jersey 07006
Attention: Vice President

If to Customer:

Either party may change the address to which notice is to be sent by giving written notice filed to the other party.

20. General: This Agreement shall be governed by the laws of the State of California and constitutes the entire agreement between the parties hereto with respect to maintenance of Equipment, and shall supersede all previous or contemporaneous negotiations, conversations and writings with respect to matters set forth herein. It may only be modified by a writing signed by authorized representatives of both parties. The terms and provisions of this Agreement shall prevail over any conflicting, additional or other terms appearing on any purchase order submitted by Customer at any time. Neither this Agreement nor any rights hereunder may be assigned or otherwise transferred by either party, except to any corporation controlled by or under common control with the assigned party, or in connection with the acquisition of, or the sale of substantially all of, the assets of the business to which this Agreement pertains.

CUSTOMER

By: _____ (Signature)

(Printed or Typed Name)

(Title)

(Date)

By: _____ (Signature)

(Printed or Typed Name)

(Title)

(Date)

TRW CUSTOMER SERVICE DIVISION MAINTENANCE AGREEMENT RATES

PRODUCT

GENERAL INFORMATION (MAINTENANCE SERVICE AGREEMENT EXHIBITS A, B, C)

EFFECTIVE
5-01-83

PAGE
7

INSTALLATION
☐ SERVICE
☐ PARTS
☐ LABOR

PRODUCT CODE MODEL DESCRIPTION INSTALLATION CHARGE MAINTENANCE CHARGE

P90-000737-4 (11/78)

EXHIBIT B Service Agreement - Detail

BILLABLE CALL RATES

EFFECTIVE _____

TERMS:

Details Call Maintenance outside of normal working hours (Mon.-Fri. 8:30 AM - 5:00 PM) or Service Agreement hours will be provided only when Customer Service Representatives are available for on-call duty.
 TRAVEL EXPENSES - Mileage, Toll, Parking and Out-of-Pocket Expenses) There will be no additional charge to customer for travel expenses incurred in connection with Covered Maintenance or if the representative is Station Call Maintenance solely because of the hour or day when performed. Travel expenses will be charged in all other cases.
 Mileage is calculated on the round trip distance between the TRW service location and the site where the service was performed. TRAVEL Time is always chargeable and is calculated on the round trip time from the TRW service location and the site where the service was performed at the applicable labor rate.
 A minimum charge equal to two hours at the applicable labor rate will be charged on all Station Call Maintenance performed outside of Service Agreement hours.
 No charge will be made for labor, travel, or mileage expense if performed or incurred during Service Agreement hours and is in connection with Covered Maintenance.

PRODUCTS

LABOR AND TRAVEL RATES

Hours Service Performed	Hourly Rate	Minimum Charge
During Service Agreement Hours (Non-Covered Maintenance)	\$	1 Hour
Outside of Service Agreement Hours Mon.-Fri. 7:30 AM - 5:00 PM Sat. : 8:30 AM - 5:00 PM SUN. : 8:30 AM - 5:00 PM	\$	2 Hours
At Other Hours Including Sundays and Holidays	\$	2 Hours

PRODUCTS

LABOR AND TRAVEL RATES

Hours Service Performed	Hourly Rate	Minimum Charge
During Service Agreement Hours (Non-Covered Maintenance)	\$	1 Hour
Outside of Service Agreement Hours Mon.-Fri. 7:30 AM - 5:00 PM Sat. : 8:30 AM - 5:00 PM SUN. : 8:30 AM - 5:00 PM	\$	2 Hours
At Other Hours Including Sundays and Holidays	\$	2 Hours

The current mileage rate is _____ per mile.

P90-000737-38 (9/80)

BILLABLE CALL RATES ARE SUBJECT TO CHANGE WITHOUT NOTICE

EXHIBIT C

RESPONSIBILITIES OF CUSTOMER

A. Maintain Terminal/Cash Wrap Environment:

1. Keep area around register free from any materials obstructing air flow. (At least four inches clearance to be maintained at the rear of the terminal).
2. Keep area free from excessive dirt and lint.
3. Assure no back-to-back placement of registers without offsetting by at least 50% of the width of the register to prevent the heated exhaust air from one register blowing into the back of another register.
4. Assure and maintain proper A. C. electrical grounding as specified with prompt correction of any unspecified condition.
5. Minimize static electric buildup in carpeted areas with the use of properly grounded static mats and/or the application of antistatic carpet spray as frequently as required.
6. Provide A. C. outlets/circuits marked for register use only, and assure that any other electrical device such as motor driven and/or heating appliances and fluorescent and/or blinking lights are not plugged into the same outlet/circuit.
7. Vacuum air filter located in front of each register. This should be done more frequently in areas that create high lint conditions, but not less than twice a year in any location.
8. Registers will not be located in areas of extreme heat or humidity conditions.
9. Spares will be stored in clean areas.

B. Maintain Data Processing Environment Requirements:

1. Keep room clean and free of dust or moisture. Damp mop floor daily.
2. Maintain 24 hour air conditioning requirements.
3. Enforce no smoking compliance.
4. Change workstation ribbon and paper.
5. Change Line Printer ribbon and paper.
6. Maintain Partition Board changes/additions.
7. Maintain electrical requirements for the processor and/or all peripheral units.
8. Provide cabinet for proper storage and protection of data packs.
9. Perform all signal wire changes between sales floor and the terminal strip is board in the equipment room.
10. Replace Disc Pack Filter.

P90-000737-3-C

15. ATM DEVICES

INPUT

IBM SERVICES BUSINESS

Product Category

ATM DEVICES

Last Updated: June 4, 1984

Source: INPUT

Contact G. Kemp

A. ENVIRONMENT OVERVIEW

1. DEFINITION

- Automatic Teller Machines (ATMs) have moved quickly away from their late 1960s role as cash dispensers in through-the-wall bank locations into "full service" (i.e., multiple-transaction capability) ATMs in off-bank premise sites in the late 1970s and now have gone in several distinct directions simultaneously.
 - Full-service lobby ATMs that replace human tellers at bank branches.
 - Specialized devices for deployment in the retail environment.
- Each retail vertical market has specific, separate product needs, some of which integrate point-of-sale (POS) and electronic fund transfer (EFT) functions.
- In addition the ATM devices are now being connected in large numbers to multipurpose, shared networks rather than the dedicated-function, private networks of the past. This trend will continue.

2. ENVIRONMENT

- The initial goal of the ATM was to replace expensive labor and extend emerging (cash-dispensing) bank coverage of customer needs around the clock. While this goal continues in the full-service lobby ATM, particularly in today's banking environments where branches are being closed by the hundreds each month (and where the remote ATM can continue to provide limited local service), the specialized retail ATM is being installed in locations where a human teller never existed. These latter devices play the role of remote network nodes with data capture capabilities.

3. REVENUE (Grade II)

1983 (\$ millions)

- Hardware shipments	\$180
- Software sales	8
- After-sales support	<u>72</u>
TOTAL	<u>\$260</u>

4. LEADING VENDORS

Percent of 1983 User Expenditures

- Diebold	40%
- IBM	24
- Docutel	14
- NCR	14

IBM SERVICES BUSINESS

Product Category

ATM DEVICES

Last Updated: June 4, 1984

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Contact G. Kemp

B. REVENUES 1982-1987

1. REVENUE FORECAST (Grade II)

\$ Millions

	<u>1983</u>	<u>1988</u>	<u>Percent AAGR</u>
- Hardware shipments	\$180	\$450	20%
- Software sales	8	40	38
- After-sales support	<u>72</u>	<u>160</u>	<u>17</u>
TOTAL	<u>\$260</u>	<u>\$650</u>	<u>20%</u>

2. HARDWARE SUPPORT (Grade III)

- Maintenance	\$ 58	\$123	16%
- Education	2	3	8
- Over-the-counter parts	<u>10</u>	<u>20</u>	<u>15</u>
TOTAL	<u>\$ 70</u>	<u>\$146</u>	<u>16%</u>

3. SOFTWARE SUPPORT (Grade III)

- Maintenance	\$ 2	\$ 11	41%
- Education	*	2	NA
- Installation	<u>*</u>	<u>1</u>	<u>NA</u>
TOTAL	<u>2</u>	<u>\$ 14</u>	<u>48</u>

* Negligible

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ATM DEVICES

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C. SUPPORT SERVICES REQUIREMENTS AND ISSUES

1. CURRENT

- ATM devices are installed singly or in small clusters so that the failure of a unit has great impact on the business performance of the customer. Response times of four to eight hours are required for on-site repair of the unit because backup units are not normally available nor is the use of replacement (loaner) units. Module swap is the most common method of service.

2. FUTURE

- The ATM devices serving the retail distribution market will become more portable, offering the possibility of carry-in/mail-in service. No such possibility is likely with the banking/finance units, which are frequently housed in bricks and mortar. On-site service will, therefore, contrive to be the predominant service requirement over the next five years and response times will decrease to the two-to-four-hour range.

3. DECISION MAKER (USER) EXPECTATIONS

- The service expectation levels of users of ATM devices are set by the type of application processed (which strengthens the recommendations made in Section G, "Module Categories." The timeliness and value of the data that transmits through the ATM determines the service level requirement, which can currently range from two-hour to next-day response and on-site to unit swap service.

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D. TECHNOLOGY ISSUES AFFECTING SUPPORT

- Similar to other dedicated displays and terminals, there are three factors affecting ATM service support that are presently working in conflicting directions:
 - Increased level of design integration, which simplifies the modularization of the ATM device.
 - Increased market-specific functional content.
 - Trend toward increased integration of role(s) that each ATM is called upon to execute, along with a narrowing of the vertical market that each unit type addresses.
- The increased modularity argues in favor of module swapout maintenance in the field and is the direction adopted by most ATM manufacturers. The increased functional content also argues in favor of in-field maintenance, but some vendors have begun offering spare units and this tendency will increase as costs diminish.
- Most of the applications that ATM devices serve in the retail distribution submarkets demand at least eight-hour response. For Financial Services and Banking ATM devices, response times are reduced to four hours; this increases service costs, particularly in light of the low unit density found at each location in the field. Units are too costly to enable a policy of spare ATMs to be feasible.
- ATM network sole-source maintenance is a growing that will require significant network knowledge and telecommunications network equipment servicing capabilities.

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Product Category

ATM DEVICES

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E. ELEMENTS OF SERVICE OFFERINGS

- The principal service need of the retail environment AMT is man-in-the-van, on-site service (response time less than eight hours) supplemented by spare on-site terminals as the per-unit price diminishes. Banking ATMs will continue to merit on-site calls with response times measured in less than four hours. Repair depots back both of these service groups, handling both entire units (retail environment ATMs) and swapped modules/failed components (banking ATMs).
- As the percentage of ATMs connected to networks (both private and shared) increases, it will become very advantageous for the ATM units to incorporate unit self-diagnosing firmware that can be remotely polled for status. The incentive to include this costly circuitry will be the travel labor cost that would otherwise be incurred in diagnosing increasingly remote ATM services in large volumes, where the statistical probability of a daily failure on a network is high.
- Networks of tens of thousands of ATMs of varying models, functions, and (perhaps) origin will become common, necessitating the offering of "total system" (single-source maintenance) contracts that include:
 - Own-manufacture ATMs.
 - "Foreign" ATMs.
 - Network switches.
 - Modems.
 - Store and forward equipment.
 - Network software.
- Over-the-counter parts will continue to be an essential offering for those vendors who incorporate OEM sales agreements in their distribution network. Third-party maintenance organizations will also play a role in the support of ATMs (see INPUT's study on TPM, 1984).

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Product Category

ATM DEVICES

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F. MARKETING PRACTICES

1. OVERVIEW

- Given the diversity (and specificity) of markets that must be addressed to sell ATMs, it is important to focus marketing activities at the decision points and not at the general marketplace. The greater volume of ATMs will be sold by high-level, corporate-level, single-shot deals where the generalist salesman has little or no role to play. Industry consultants who can apply their professional knowledge of the application and the projects involved will be of far more worth.

2. DISTRIBUTION CHANNELS

- Direct sales of ATMs by these high-level industry specialists, supplemented by OEM agreements with major retail chains, insurance networks, financial service houses, etc., will rapidly outpace the traditional sales approach to banks. Banking will become a vertical market within the total ATM marketplace, well behind retail distribution and financial service companies.
- The expected share of shipments through direct sales and OEM sales channels are as follows:

	<u>1983</u>	<u>1988</u>
Direct sales	78	70
OEM and other	22	30

3. PRICING AND DISCOUNTING

- Current ATM discounting practices will continue, with direct sales discounts ranging up to 40% of list price and OEM discounts ranging up to 60% off list for exceptionally large or exceptionally valuable contracts.
- Unit prices will continue to erode in the 1984-1986 period but should begin to stabilize by 1987 with increased functional content and integration of capabilities.

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Product Category

ATM DEVICES

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G. MODULE CATEGORIES

- Suggested module categories should follow application areas of significant market value potential:
 - Finance companies (EFT integration).
 - Food retailers (EFT, check authorization integration).
 - General merchandise retailers (check authorization and POS integration).
 - Insurance companies (EFT integration).
 - Travel industries (EFT and check authorization integration).
 - Government - armed forces (EFT and check authorization integration).
 - Government - general public (welfare, food stamps, etc.).
 - Local banking (full-service lobby ATM).
 - Remote banking (travelers checks, cash dispenser, account query).
- Product categories should be subordinated to vertical application markets (rather than the other way around, as is practiced by most vendors today).

